

- 58 -

## CLAIMS

~~306 B1~~  
1. (Amended) An isolated nucleic acid molecule comprising a sequence of nucleotides encoding or complementary to a sequence encoding an Interleukin (IL)-11 receptor or a mutant, derivative, component, part, fragment, homologue, analogue or a peptide or polypeptide equivalent thereof wherein said IL-11 receptor comprises an amino acid sequence as set forth in SEQ ID NO 1:

Trp-Ser-Xaa-Trp-Ser,  
wherein Xaa is any amino acid.

2. (Deleted).

3. (Amended) An isolated nucleic acid molecule according to claim 1 wherein the IL-11 receptor is of mammalian origin.

~~306 B2~~  
4. An isolated nucleic acid molecule according to claim 3 wherein the IL-11 receptor is of human or murine origin.

5. An isolated nucleic acid molecule according to claim 4 wherein the nucleic acid is DNA.

6. An isolated nucleic acid molecule according to claim 5 wherein the nucleic acid molecule encodes an  $\alpha$ -chain of murine IL-11 receptor comprising an amino acid sequence substantially as set forth in SEQ ID NO: 3.

7. An isolated nucleic acid molecule according to claim 6 wherein said nucleic acid molecule comprises a sequence of nucleotides substantially as set forth in SEQ ID NO: 2 or is capable of hybridising thereto under low stringency conditions.

8. An isolated nucleic acid molecule according to claim 5 wherein the nucleic acid molecule encodes an  $\alpha$ -chain of human IL-11 receptor having an amino acid sequence as set forth in SEQ ID NO: 5.

9. An isolated nucleic acid molecule according to claim 8 wherein said nucleic acid molecule comprises a sequence of nucleotides substantially as set forth in SEQ ID NO: 4 or is capable of hybridising thereto under low stringency conditions.

10. A recombinant vector comprising the nucleic acid molecule according to claim 6 or 7.

11. A recombinant vector comprising the nucleic acid molecule according to claim 8 or 9.

12. An isolated nucleic acid molecule comprising a sequence of DNA which encodes a mammalian IL-11 receptor  $\alpha$ -chain, said nucleic acid molecule further defined by the ability of an oligonucleotide to hybridise thereto under medium stringency conditions and wherein said oligonucleotide is selected from SEQ ID NO: 6 to SEQ ID NO: 10 or a complement sequence thereof.

13. A recombinant polypeptide comprising a sequence of amino acids corresponding to all or a part of a mammalian IL-11 receptor  $\alpha$ -chain and containing the amino acid sequence set forth in SEQ ID NO: 1:

Trp-Ser-Xaa-Trp-Ser

wherein Xaa is any amino acid.

14. A recombinant polypeptide according to claim 13 wherein the mammal is a human or murine species.

15. A recombinant polypeptide according to claim 14 wherein the polypeptide comprises the amino acid sequence substantially set forth in SEQ ID NO: 5 or has at least about 40% similarity to all or part thereof.

16. A recombinant polypeptide according to claim 14 wherein the polypeptide comprises the amino acid sequence substantially set forth in SEQ ID NO: 3 or has at least about 40% similarity to all or part thereof.

17. A method of identifying and/or cloning a genetic sequence encoding or complementary to a sequence encoding a haemopoietin receptor or a component or part thereof, said method comprising screening a source of genetic material with one or more degenerate oligonucleotides designed from the sequence of amino acids comprising:

Trp-Ser-Xaa-Trp-Ser (SEQ ID NO: 1)

wherein Xaa is any amino acid.

18. A method according to claim 17 wherein the haemopoietin receptor is Interleukin (IL)-11 receptor.

19. A method according to claim 18 wherein the IL-11 receptor is of mammalian origin.

20. A method according to claim 19 wherein the IL-11 receptor is of human or ~~murine~~ origin.

21. A method according to claim 20 wherein the genetic sequence is DNA.

22. A method according to claim 21 wherein the genetic sequence encodes an  $\alpha$ -chain of murine IL-11 receptor comprising an amino acid sequence substantially as set forth in SEQ ID NO: 3 or having at least about 40% similarity to all or part thereof.

- 61 -

23. A method according to claim 22 wherein the genetic sequence comprises a nucleotide sequence substantially as set forth in SEQ ID NO. 2 or 10 capable of hybridizing thereto under low stringency conditions.

24. A method according to claim 21 wherein the genetic sequence encodes an  $\alpha$ -chain of human IL-11 receptor having an amino acid sequence substantially as set forth in SEQ ID NO: 5 or having at least about 40% similarity to all or part thereof.

25. A method according to claim 24 wherein said genetic sequence comprises a sequence of nucleotide substantially as set forth in SEQ ID NO: 4 or is capable of hybridising thereto under low stringency conditions.

26. (Amended) An oligonucleotide probe capable of hybridising under medium stringency conditions to a nucleotide sequence encoding an IL-11 receptor.

27. (Deleted)

28. (Amended) An oligonucleotide probe according to claim 26 wherein the probe is capable of hybridising to a genetic sequence encoding the IL-11 receptor  $\alpha$ -chain.

29. (Amended) An oligonucleotide probe according to claim 26 or 28 selected from SEQ ID NO: 6 to SEQ ID NO: 10 or a complementary sequence thereof.